AMENDMENT UNDER 37 C.F.R. § 1.116

U.S. Application. No.: 10/509,898

Attorney Docket No.: Q83944

**REMARKS** 

Claims 1-20 are the claims pending in the application. Claims 5-8 are withdrawn from

consideration. Claim 1 is rejected. Claims 2-4 and 19-20 are objected-to.

Claim 1 is amended to recite that the modified portion of the organic insulating film

includes carbon and nitrogen atoms forming carbon-nitrogen bonds. Support for the amendment

can be found at least at page 19, second full paragraph of the specification. No new matter is

being added.

Claims 5-18 are canceled without prejudice or disclaimer.

The proposed amendment is believed to place all claims under consideration in condition

for allowance and its entry is respectfully requested.

Response to Rejection

Claim 1 of the present application is rejected under 35 U.S.C. §102(e) as allegedly being

anticipated by Kanegae (U.S. Patent Application Publication No. 2002/0061654).

Applicants respectfully submit that Kanegae does not disclose or render obvious the

semiconductor device of the present invention.

At page 3 of the Office Action, the Examiner states that Figure 3 of Kanegae teaches a

semiconductor device comprising an organic insulating film (104) having an opening (104a), and

that the side of the opening has an insulated portion (104b). Furthermore, the Examiner states,

the modified portions include nitrogen atoms and carbon atoms (paragraphs [0163]-[0166] and

Figure 7). Additionally, it appears the Examiner relies on Figure 7 to show that nitrogen is

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present in the modified layer, albeit in an atomic concentration of less than 5%. See page 2 of the previous Office Action dated January 10, 2008.

Applicants respectfully submit that the nitrogen content of the present modified insulating layer is vastly different from that of Kanegae. At paragraph [0165] of Kanegae it is stated that

> "[f]rom the XPS analysis results and in consideration of the material gas for film formation, it is presumed that SiC, SiN, and  $CH_x$  (x=1 to 3) are captured in the network of SiOx (x=1 to 3)"

Figure 7 of Kanegae shows the above mentioned XPS data. Therefore, the carbon and nitrogen atoms present in the modified layer of Kanegae are not bonded to each other. In fact, any nitrogen present in the layer is bonded to silicon and not carbon.

In contrast, as recited in present claim 1, and at page 19, second full paragraph of the present specification, many carbon-nitrogen bonds are formed which make the structure of the present invention mechanically and chemically strong. These carbon-nitrogen bonds are an important aspect of the modified insulting layer.

Applicants respectfully submit that, in view of the above, claim 1 is not anticipated or rendered obvious by Kanegae as each and every element of present claim 1 is not disclosed in Kanegae. Claims 2-4 and 19-20 are patentable at least by virtue of their dependence from claim 1.

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Therefore, Applicants respectfully request reconsideration and withdrawal of the

rejection of claim 1, and of the objection to claims 2-4 and 19-20.

Conclusion

In view of the above, reconsideration and allowance of this application are now believed

to be in order, and such actions are hereby solicited. If any points remain in issue which the

Examiner feels may be best resolved through a personal or telephone interview, the Examiner is

kindly requested to contact the undersigned at the telephone number listed below.

The USPTO is directed and authorized to charge all required fees, except for the Issue

Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any

overpayments to said Deposit Account.

Respectfully submitted,

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CUSTOMER NUMBER

Date: July 1, 2008

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